J. A. "Buzz" Miller Senior Vice President Nuclear Development Southern Nuclear Operating Company, Inc. 40 Inverness Center Parkway Post Office Box 1295 Birmingham, Alabama 35201

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Energy to Serve Your World sa

August 14, 2006

AR-06-1579 10 CFR 52, Subpart A

U.S. Nuclear Regulatory Commission Document Control Desk Washington, DC 20555-0001

Southern Nuclear Operating Company
Project Number: 00737
Vogtle Electric Generating Plant Early Site Permit Application

Ladies and Gentlemen:

Southern Nuclear Operating Company (SNC), acting on behalf of itself and Georgia Power Company (GPC), Oglethorpe Power Corporation (an Electric Membership Corporation), Municipal Electric Authority of Georgia (MEAG), and the City of Dalton, Georgia, an incorporated municipality in the State of Georgia acting by and through its Board of Water, Light and Sinking Fund Commissioners (herein called the owners), hereby submits an application for an Early Site Permit (ESP) for two additional reactors at the Vogtle Electric Generating Plant (VEGP) site near Waynesboro, Georgia. This application is submitted in accordance with Part 52, Subpart A of Title 10 of the Code of Federal Regulations. With this application, SNC is requesting an Early Site Permit with the statutory 20-year duration for the VEGP site.

This submittal represents a concerted effort by SNC to provide the owners with the option for additional nuclear generation capacity by 2015. As discussed in SNC's previous correspondence dated July 17, 2005, SNC plans to follow this submittal with an application for a Combined License (COL) by March of 2008.

Key highlights of this ESP application are summarized below:

- The proposed additional units (i.e., new VEGP Units 3 and 4) are co-located with VEGP Units 1 and 2 on the existing Vogtle site. Co-location provides numerous benefits for licensing of new units. In addition to the existing infrastructure of roadways, transmission lines, and railways on the VEGP site, a robust historical volume of geotechnical, hydrological, environmental and meteorological information is available.
- The proposed design for VEGP Units 3 and 4 is the Westinghouse AP1000. A plant parameter envelope using multiple designs was not utilized. Selection of a specific reactor

technology allowed the ESP application to address safety and environmental impacts using technology-specific information.

- The ESP application was developed to address the environmental impacts as complete as
 possible at the ESP stage, thus limiting the need for addition information in the COL
 application.
- The ESP application requests Limited Work Authorization (LWA-1) for non-safety related site preparation activities described in 10 CFR 50.10(e)(1). These LWA-1 activities are fully described in Section 3.9 of the Environmental Report. A redress plan for these site preparation activities is also included.
- The ESP application includes a complete and integrated Emergency Plan with inspection, testing and acceptance criteria (ITAAC), based on and combined with the existing Emergency Plan for VEGP Units 1 and 2.

The ESP application consists of the following major parts:

- Cover and Table of Contents
- Part 1, Administrative Information a description of the application format and content and information on the applicant as required by 10 CFR 52.17(a)(1).
- Part 2, Site Safety Analysis Report detailed descriptions and analyses of the physical characteristics of the site and its capability to safely support the operation of two additional reactors. This information is required by 10 CFR 52.17(a)(1).
- Part 3, Environmental Report suitability of the site to support construction and operation of two additional units relative to the impact on the environment. This information is required by 10 CFR 52.17(a)(2).
- Part 4, Site Redress Plan actions that will be taken to restore the site environment in the event that construction activities allowed by the ESP are initiated and plans for additional units are subsequently canceled. This information is submitted in accordance with 10 CFR 52.17(c).
- Part 5, Emergency Plan an emergency plan for the site in accordance with 10 CFR 52.17(b).

There is a limited amount of owner proprietary and sensitive information in the environmental section of the ESP application. This proprietary information consists of confidential need for power data and fuel needs data, and can be found in Chapters 8 and 10 of Part 3 - the Environmental Report. SNC requests that this information be withheld from public disclosure (i.e., non-publicly available), in accordance with 10 CFR 2.390(b). Thus, Enclosure 1 contains an affidavit for withholding executed by each owner that was prepared in accordance with 10 CFR 2.390.

Electronic versions (i.e., compact discs [CDs]) of both the publicly available and the non-publicly available version are being provided as Enclosures 2 and 3, respectively, and have been prepared to NRC specifications for electronic submittals. Both the publicly available and non-publicly available CDs are each complete versions of the ESP application. In addition, by copy of this letter thirty (30) copies of the non-publicly available ESP application on CDs, forty (40) copies of the publicly available ESP application on CDs and four (4) hard copies of the non-publicly available ESP

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being provided to the NRC Vogtle ESP Project Manager. Finally, after the application is docketed, SNC will notify the appropriate agencies as required by 10 CFR 2.101.

The SNC licensing contact for this application is J. T. Davis at (205) 992-7692 or C. R. Pierce at (205) 992-7872.

This application does not contain restricted data or other defense information that requires separation from the unclassified information in accordance with 10 CFR 50.33(j) pursuant to 10 CFR 52.17(a)(1).

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

Joseph A. (Buzz) Miller

Sworn to and subscripted before me this 19th day of august 2006

Enclosures:

JAM/BJS/dmw

Enclosure 1 – Affidavits for Withholding

Enclosure 2 – Publicly Available Vogtle Early Site Permit Application (CD)

Enclosure 3 – Non-Publicly Available Vogtle Early Site Permit Application (CD)

Southern Nuclear Operating Company

Mr. J. B. Beasley, Jr., President and CEO (w/o)

Mr. J. T. Davis, Vogtle ESP Project Engineer (w/o)

Mr. J. T. Gasser, Executive Vice President, Nuclear Operations (w/o)

Mr. D. E. Grissette, Vice President, Plant Vogtle (w/o)

Mr. D. M. Lloyd, Vogtle Deployment Director (w/ publicly available CD)

Mr. C. R. Pierce, Vogtle Development Licensing Manager (w/publicly available CD and hardcopy)

Document Services RTYPE: AR01

File AR.01.01.06

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Nuclear Regulatory Commission

Mr. J. E. Dyer, Director of Office of Nuclear Regulation (w/ non-publicly available CD)

Mr. W. D. Travers, Region II Administrator (w/ non-publicly available CD)

Mr. D. B. Matthews, Director of New Reactors (w/ non-publicly available CD)

Ms. S. M. Coffin, AP1000 Manager of New Reactors (w/ non-publicly available CD)

Mr. C. J. Araguas, Project Manager of New Reactors (w/ 40 copies of non-publicly available CD, 30 copies of publicly available CD, and 4 non-publicly available hardcopies)

Mr. G. J. McCoy, Senior Resident Inspector of VEGP (w/ non-publicly available CD)

Georgia Power Company

Mr. O. C. Harper, Vice President, Resource Planning and Nuclear Development (w/ publicly available CD)

Oglethorpe Power Corporation

Mr. M. W. Price, Chief Operating Officer (w/ publicly available CD)

Municipal Electric Authority of Georgia

Mr. C. B. Manning, Senior Vice President and Chief Operating Officer (w/ publicly available CD)

Dalton Utilities

Mr. D. Cope, President and Chief Executive Officer (w/ publicly available CD)

Southern Nuclear Operating Company

AR-06-1579

Enclosure 1

Affidavits for Withholding

AFFIDAVIT OF OSCAR HARPER

- I, Oscar C. Harper IV, Vice President, Resource Planning and Nuclear Development of Georgia Power Company ("Georgia Power") state that:
- 1. I am authorized to execute this affidavit on behalf of Georgia Power.
- 2. Georgia Power is providing information to the Nuclear Regulatory Commission ("NRC") in support of its "Environmental Report" filed as part of its Early Site Permit Application ("ESP Application"). Both Redacted and Confidential Versions of the ESP Application are being provided to the NRC. The ESP Application contains confidential need for power data (as indicated in Chapter 8 of the Environmental Report, Section 8.4.1) and fuel needs data (as indicated in Chapter 10 of the Environmental Report, Section 10.4.1)(the "Information"). The Information is proprietary, trade secret, and confidential commercial information that should be held in confidence by the NRC pursuant to the policy reflected in 10 C.F.R. § 2.390(b) because:
 - a. The Information is and has been held in confidence by Georgia Power.
 - b. The Information is of a type that is held in confidence by Georgia Power and there is a rational basis for doing so because the information contains sensitive trade secret confidential commercial information concerning Georgia Power's need for power data, reserve margin and fuel needs.
 - c. The Information is being transmitted to the NRC in confidence.
 - d. The Information is not available in public sources and could not be gathered readily from other publicly available information.
 - e. Public disclosure of the Information would create substantial harm to the competitive position of Georgia Power by disclosing its need for power data, reserve margin and fuel needs data to other parties whose commercial interests may be adverse to those of Georgia Power.
- 3. The Information is the type of data that Georgia Power protects in its filings with the Georgia Public Service Commission in accordance with such Commission's practice for protecting such information. Revealing the Information could (1) assist competitors in undercutting bids to win either wholesale or retail customers, or both; (2) impair the cost-effectiveness of future power purchases or capacity procurements by, for example, providing prospective sellers of power with assumptions to the detriment of the owner (and such owners' customers); and (3)

otherwise compromise Georgia Power's ability to procure the best cost resources from the energy marketplace. Southern Nuclear Operating Company ("SNC"), working on behalf of the owners, has limited the access to the Information to those SNC individuals with a "need to know" to facilitate drafting and other matters necessary in pursuing an ESP Application.

4. Accordingly, Georgia Power requests that Information, as contained within the Confidential Version of the ESP Application, be withheld from public disclosure pursuant to the policy reflected in 10 .C.F.R. § 2.390(b).

GEORGIA POWER COMPANY

Oscar C. Harper IV

Vice President, Resource Planning and Nuclear

Osean C Hayer Il

Development

STATE OF GEORGIA

COUNTY OF COURTA

Subscribed and sworn to me, a Notary Public, in and for the County and state above named, this ______ day of _______ doob

mie a. McKoy

My Commission Expires: 07-28-08

AFFIDAVIT OF MICHAEL W. PRICE

I, Michael W. Price, Chief Operating Officer, of Oglethorpe Power Corporation (An Electric Membership Corporation) ("Oglethorpe") state that:

- 1. I am authorized to execute this affidavit on behalf of Oglethorpe.
- 2. Oglethorpe is providing information to the Nuclear Regulatory Commission ("NRC") in support of its "Environmental Report" filed as part of its Early Site Permit Application ("ESP Application"). Both Redacted and Confidential Versions of the ESP Application are being provided to the NRC. The ESP Application contains confidential need for power data (as indicated in Chapter 8 of the Environmental Report, Section 8.4.1) (the "Information"). The Information is proprietary, trade secret and confidential commercial information that should be held in confidence by the NRC pursuant to the policy reflected in 10 C.F.R. § 2.390(b) because:
 - a. The Information is and has been held in confidence by Oglethorpe.
 - b. The Information is of a type that is held in confidence by Oglethorpe and there is a rational basis for doing so because the information contains sensitive trade secret confidential commercial information concerning Oglethorpe's need for power data and reserve margin.
 - c. The Information is being transmitted to the NRC in confidence.
 - d. The Information is not available in public sources and could not be gathered readily from other publicly available information.
 - e. Public disclosure of the Information would create substantial harm to the competitive position of Oglethorpe by disclosing its need for power data and reserve margin to other parties whose commercial interests may be adverse to those of Oglethorpe.
- 3. The Information is the type of data that Oglethorpe holds confidential. Revealing the Information could (1) assist competitors in undercutting bids to win either wholesale or retail customers, or both; (2) impair the cost-effectiveness of future power purchases or capacity procurements by, for example, providing prospective sellers of power with assumptions to the detriment of the owner (and such owners' customers); and (3) otherwise compromise Oglethorpe's ability to procure the best cost resources from the energy marketplace. Oglethorpe provided the Information for inclusion in the ESP Application pursuant to agreements that require that access to the Information be

limited to individuals with a "need to know" to facilitate drafting and other matters necessary in pursuing an ESP Application.

4. Accordingly, Oglethorpe requests that Information, as contained within the Confidential Version of the ESP Application, be withheld from public disclosure pursuant to the policy reflected in 10 .C.F.R. § 2.390(b).

OGLETHORPE POWER CORPORATION
(AN ELECTRIC MEMBERSHIP CORPORATION)

Michael W. Price Chief Operating Officer

STATE OF GEORGIA

COUNTY OF Fulton

Subscribed and sworn to me, a Notary Public, in and for the County and state above named, this 14h day of August ,2006.

My Commission Expires:

EXPIRES
GEORGIA
JUNE 7, 2009

COMMISSION OF THE PROPERTY OF TH

AFFIDAVIT OF ROBERT P. JOHNSTON

I, Robert P. Johnston, President and Chief Executive Officer of the Municipal Electric Authority of Georgia ("MEAG"), state that:

- 1. I am authorized to execute this affidavit on behalf of MEAG.
- 2. MEAG is providing information to the Nuclear Regulatory Commission ("NRC") in support of its "Environmental Report" filed as part of its Early Site Permit Application ("ESP Application"). Both Redacted and Confidential Versions of the ESP Application are being provided to the NRC. The ESP Application contains confidential need for power data (as indicated in Chapter 8 of the Environmental Report, Section 8.4.1) (the "Information"). The Information is proprietary, trade secret, and confidential commercial information that should be held in confidence by the NRC pursuant to the policy reflected in 10 C.F.R. § 2.390(b) because:
 - a. The Information is and has been held in confidence by MEAG.
 - b. The Information is of a type that is held in confidence by MEAG and there is a rational basis for doing so because the information contains sensitive trade secret confidential commercial information concerning MEAG's need for power data and reserve margin.
 - c. The Information is being transmitted to the NRC in confidence.
 - d. The Information is not available in public sources and could not be gathered readily from other publicly available information.
 - e. Public disclosure of the Information would create substantial harm to the competitive position of MEAG by disclosing its need for power and reserve margin data to other parties whose commercial interests may be adverse to those of MEAG.
- 3. The Information is the type of data that MEAG holds confidential. Revealing the Information could (1) assist competitors in undercutting bids to win either wholesale or retail customers, or both; (2) impair the cost-effectiveness of future power purchases or capacity procurements by, for example, providing prospective sellers of power with assumptions to the detriment of the owner (and such owners' customers); and (3) otherwise compromise MEAG's ability to procure the best cost resources from the energy marketplace. Southern Nuclear Operating Company ("SNC"), working on behalf of the owners, has limited the access to the

- Information to those SNC individuals with a "need to know" to facilitate drafting and other matters necessary in pursuing an ESP Application.
- 4. Accordingly, MEAG requests that Information, as contained within the Confidential Version of the ESP Application, be withheld from public disclosure pursuant to the policy reflected in 10 .C.F.R. § 2.390(b).

MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA

Robert P. Johnston

President and Chief Executive Officer

STATE OF GEORGIA

COUNTY OF <u>COBB</u>

Subscribed and sworn to me, a Notary Public, in and for the County and state above named, this 31d day of august, 2006.

My Commission Expires:

Notary Public, Cobb County, Georgia

My Commission Explana Sectoraber 22, 2005

AFFIDAVIT OF DON COPE

- I, Don Cope, President and Chief Executive Officer of Dalton Utilities, representing the Board of Water, Light and Sinking Fund Commissioners of the City of Dalton, Georgia, an incorporated municipality in the State of Georgia, state that:
- 1. I am authorized to execute this affidavit on behalf of Dalton Utilities.
- 2. Dalton Utilities is providing information to the Nuclear Regulatory Commission ("NRC") in support of its "Environmental Report" filed as part of its Early Site Permit Application ("ESP Application"). Both Redacted and Confidential Versions of the ESP Application are being provided to the NRC. The ESP Application contains confidential need for power data (as indicated in Chapter 8 of the Environmental Report, Section 8.4.1 (the "Information"). The Information is proprietary, trade secret, and confidential commercial information that should be held in confidence by the NRC pursuant to the policy reflected in 10 C.F.R. § 2.390(b) because:
 - a. The Information is and has been held in confidence by Dalton Utilities.
 - b. The Information is of a type that is held in confidence by Dalton Utilities and there is a rational basis for doing so because the information contains sensitive trade secret confidential commercial information concerning Dalton Utilities' need for power data and reserve margin.
 - c. The Information is being transmitted to the NRC in confidence.
 - d. The Information is not available in public sources and could not be gathered readily from other publicly available information.
 - e. Public disclosure of the Information would create substantial harm to the competitive position of Dalton Utilities by disclosing its need for power and reserve margin data to other parties whose commercial interests may be adverse to those of Dalton Utilities.
- 3. The Information is the type of data that Dalton Utilities holds confidential. Revealing the Information could (1) assist competitors in undercutting bids to win either wholesale or retail customers, or both; (2) impair the cost-effectiveness of future power purchases or capacity procurements by, for example, providing prospective sellers of power with assumptions to the detriment of the owner (and such owners' customers); and (3) otherwise compromise Dalton Utilities' ability to procure the best cost resources from the energy marketplace. Southern Nuclear

Operating Company ("SNC"), working on behalf of the owners, has limited the access to the Information to those SNC individuals with a "need to know" to facilitate drafting and other matters necessary in pursuing an ESP Application.

4. Accordingly, Dalton Utilities requests that Information, as contained within the Confidential Version of the ESP Application, be withheld from public disclosure pursuant to the policy reflected in 10 .C.F.R. § 2.390(b).

DALTON UTILITIES

Don Cope

President and Chief Executive Officer

STATE OF GEORGIA

COUNTY OF Whitfield

My Commission Expires:



Dan Withur

Southern Nuclear Operating Company

AR-06-1579

ENCLOURE 2

PUBLICLY AVAILABLE

Vogtle Early Site Permit Application (CD)

Contact

Name Jim Davis

Mailing Address 40 Inverness Center Parkway

Bin B056

Birmingham, AL 35242 jtdavis@southernco.com

E-Mail Address jtdavis@southernco.co

Phone Number 205-992-6692

Document Components:

A total of one (1) CD-ROM is included in this submission enclosure and it is labeled "Early Site Permit Application Vogtle Units 3 & 4 - Revision 0, AR-06-1579 Enclosure 2, Publicly Available Report." The CD-ROM contains the following files:

File	File Title	No. of Bytes	Publicly
No.			Available
001	001_VEGP_ESP_PT1_Intro.pdf	228,342 bytes	yes
002	002_VEGP_ESP_PT2_Ch1-Sec_2.3.pdf	14,708,640 bytes	yes
003	003_VEGP_ESP_PT2_Sec_2.4.pdf	19,956,847 bytes	yes
004	004_VEGP_ESP_PT2_Sec_2.5.1.pdf	357,457 bytes	yes
005	005_VEGP_ESP_PT2_Sec_2.5.1_Fig(1).pdf	37,983,424 bytes	yes
006	006 VEGP ESP PT2 Sec 2.5.1 Fig(2).pdf	22,417,443 bytes	yes
007	007_VEGP_ESP_PT2_Sec_2.5.2-2.5.6.pdf	9,593,444 bytes	yes
008	008_VEGP_ESP_PT2_App_2.5A(1).pdf	10,241,102 bytes	yes
009	009_VEGP_ESP_PT2_App_2.5A(2).pdf	13,682,597 bytes	yes
010	010_VEGP_ESP_PT2_App_2.5A(3).pdf	42,225,863 bytes	yes
011	011_VEGP_ESP_PT2_App_2.5A(4).pdf	11,264,137 bytes	yes
012	012_VEGP_ESP_PT2_App_2.5A(5).pdf	19,438,860 bytes	yes
013	013_VEGP_ESP_PT2_App_2.5A(6).pdf	22,316,288 bytes	yes
014	014_VEGP_ESP_PT2_App_2.5B.pdf	3,906,035 bytes	yes
015	015_VEGP_ESP_PT2_Ch3-Ch17.pdf	3,880,873 bytes	yes
016	016_VEGP_ESP_Pt3_Cover_to_2.2-pub.pdf	10,455,625 bytes	yes
017	017_VEGP_ESP_Pt3_2.3_to_2.5.pdf	35,303,743 bytes	yes
018	018_VEGP_ESP_Pt3_2.6_to_2.9.pdf	23,376,330 bytes	yes
019	019_VEGP_ESP_Pt3_3.0_to_7.4.pdf	15,358,078 bytes	yes
020	020_VEGP_ESP_Pt3_8.0_to_AppC.pdf	5,237,336 bytes	yes
021	021_VEGP_ESP_Pt4_REDRESS_PLAN.pdf	126,910 bytes	yes
022	022_VEGP_ESP_Pt5_EP.pdf	3,589,106 bytes	yes

Southern Nuclear Operating Company

AR-06-1579

ENCLOURE 3

NON-PUBLICLY AVAILABLE

Vogtle Early Site Permit Application (CD)

Contact

Name

Jim Davis

Mailing Address

40 Inverness Center Parkway

Bin B056

Birmingham, AL 35242

E-Mail Address

jtdavis@southernco.com

Phone Number

205-992-6692

Document Components:

A total of one (1) CD-ROM is included in this submission enclosure and it is labeled "Early Site Permit Application Vogtle Units 3 & 4 - Revision 0, AR-06-1579 Enclosure 3, Non-Publicly Available Report." The CD-ROM contains the following files:

File	File Title	No. of Bytes	Publicly
No.			Available
001	001_VEGP_ESP_PT1_Intro.pdf	210,342 bytes	yes
002	002 VEGP ESP PT2 Ch1-Sec 2.3.pdf	14,708,640 bytes	yes
003	003_VEGP_ESP_PT2_Sec_2.4.pdf	19,956,847 bytes	yes
004	004_VEGP_ESP_PT2_Sec_2.5.1.pdf	357,457 bytes	yes
005	005_VEGP_ESP_PT2_Sec_2.5.1_Fig(1).pdf	37,983,424 bytes	yes
006	006_VEGP_ESP_PT2_Sec_2.5.1_Fig(2).pdf	22,417,443 bytes	yes
007	007_VEGP_ESP_PT2_Sec_2.5.2-2.5.6.pdf	9,593,444 bytes	yes
008	008_VEGP_ESP_PT2_App_2.5A(1).pdf	10,241,102 bytes	yes
009	009 VEGP ESP PT2 App 2.5A(2).pdf	13,682,597 bytes	yes
010	010 VEGP_ESP_PT2_App_2.5A(3).pdf	42,225,863 bytes	yes
011	011_VEGP_ESP_PT2_App_2.5A(4).pdf	11,264,137 bytes	yes
012	012_VEGP_ESP_PT2_App_2.5A(5).pdf	19,438,860 bytes	yes
013	013 VEGP_ESP_PT2_App_2.5A(6).pdf	22,316,288 bytes	yes
014	014_VEGP_ESP_PT2_App_2.5B.pdf	3,906,035 bytes	yes
015	015_VEGP_ESP_PT2_Ch3-Ch17.pdf	3,880,873 bytes	yes
016	016_VEGP_ESP_Pt3_Cover_to_2.2.pdf	10,479,586 bytes	yes
017	017_VEGP_ESP_Pt3_2.3_to_2.5.pdf	35,303,743 bytes	yes
018	018_VEGP_ESP_Pt3_2.6_to_2.9.pdf	23,376,330 bytes	yes
019	019_VEGP_ESP_Pt3_3.0_to_7.4.pdf	15,358,078 bytes	yes
020	020 VEGP ESP PROPIETARY Pt3 8.0 to 10.5.pdf	2,158,731 bytes	No
021	021_VEGP_ESP_Pt3_AppA_to_AppC.pdf	3,119,408 bytes	yes
022	022_VEGP_ESP_Pt4_REDRESS_PLAN.pdf	126,905 bytes	yes
023	023_VEGP_ESP_Pt5_EP.pdf	3,589,125 bytes	yes